U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

FEB 6 2001

DOT-E 7694
(*FOURTH REVISION*)

EXPIRATION DATE: October 31, 2002

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Applied Companies
Valencia, California

(See Appendix A to this document for a list of additional grantees)

2. PURPOSE AND LIMITATION:

a. This exemption authorizes the transportation in commerce of certain Division 2.2 gases in DOT specification cylinders. This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.

b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.302 and 175.3 in that a non-DOT-specification cylinder is not authorized, except as specified herein.

5. BASIS: This exemption is based on the application of Applied Companies dated August 2, 2000, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi-fication Number	Packing Group
Argon, compressed	2.2	UN1006	N/A
Compressed gas, n.o.s. (mixture of Helium, Argon, or Nitrogen)	2.2	UN1956	N/A
Helium, compressed	2.2	UN1046	N/A
Nitrogen, compressed	2.2	UN1066	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packaging is a welded or seamless, non-refillable, non-DOT Specification steel cylinder (including spheres and toroids) made in compliance with DOT Specification 39 (§§ 178.35 and 178.65) except as follows:

§ 178.65(a) *Type, size, service pressure and test pressure*

Maximum size may not exceed 15 cu.in. and marked service pressure may not exceed 85% of the test pressure. Maximum service pressure may not exceed 6,500 psig.

§ 178.65(b) *Material: steel*

The steel analysis must conform to that shown in § 178.44(b) required for Specification 3HT cylinder.

§ 178.65(d) *Wall thickness*

The minimum wall thickness must be such that the wall stress at test pressure does not exceed either of the following:

(1) The yield strength of the material of the finished cylinder wall.

(2) 110,000 psi.

§ 178.65(f) *Pressure tests*

(1) * * *

(2) * * *

(i) A failure occurs at a gage pressure less than 2.36 times the service pressure.

* * * * *

§ 178.65(g) *Flattening test*

(1) and (2) * * *

(3) [Add] Flattening between flat plates is authorized.

(4) Cylinders or test rings may not crack when flattened so their outer surfaces are not more than ten times wall thickness apart.

(5) * * *

§ 178.65(i) *Marking*

Applies except that cylinders must be marked "DOT-E 7694" instead of "DOT-39".

b. TESTING - Package must be capable of withstanding a twelve foot drop onto solid concrete without damage to the pressure vessel or leakage of gas.

c. OPERATIONAL CONTROLS - Cylinders must be shipped in strong outside packagings in accordance with § 173.301(k).

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.

b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

c. Packages specified herein marked "DOT SP 6672" prior to the issuance of this exemption may be transported under the terms of this exemption.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo aircraft only.

10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each aircraft used to transport packages covered by this exemption. The shipper must furnish a copy of this exemption to the air carrier before or at the time the shipment is tendered.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.

- Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when this exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken

under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued in Washington, D.C.:

Robert A. McGuire
For Associate Administrator for
Hazardous Materials Safety

FEB 6 2001
(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590. Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, S.W., Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

PO: KFW/sln

The following are hereby granted party status to this exemption based on their application(s) submitted in accordance with § 107.107 or § 107.109, as appropriate:

Company Name City/State	Application Date	Issue Date	Expiration Date
Moog Inc. Salt Lake Operations Salt Lake City, UT (Former grantee: Raytheon Aircraft Company)	Jan 9, 2001	FEB 6 2001	Oct 31, 2002

Robert A. McGuire
For Associate Administrator for
Hazardous Materials Safety